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49. (New) A method to calibrate imager device responses,
2 comprising:
3 presenting a plurality of light radiating sources;
4 producing a first set of responses based the plurality of
5 light radiating sources;
6 producing a second set of responses by exposing an imager
7 device to the plurality of light radiating sources; and
8 determining calibrating coefficients from the first set of
9 responses and the second set of responses.

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50. (New) The method of claim 49, wherein presenting a
2 plurality of light radiating sources includes presenting three to
3 more than five light emitting diodes, wherein each light emitting
4 diode includes a different spectral radiation characteristic
5 within the spectral sensitivity of the human visual system.

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51. (New) The method of claim 50, wherein presenting three to
2 more than five light emitting diodes includes presenting five
3 light emitting diodes having the peak wavelengths of 430nm, 470nm,
4 545nm, 590nm, and 660nm, respectively.

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52. (New) The method of claim 49 wherein producing the first
2 set of responses includes mapping the first set of responses as
3 red, green, and blue values into a plurality of XYZ tristimulus
4 values.

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1 (New) The method of claim 49 wherein producing the first
2 set of responses based on the plurality of light radiating sources
3 includes exposing a spectrophotometer to the plurality of light
4 radiating sources.

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1 (New) The method of claim 49 wherein exposing the imager
2 device to the plurality of light radiating sources includes
3 illuminating the imager device sequentially with each of the light
4 radiating sources.

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1 (New) A method to calibrate an imager device, comprising:
2 (i) presenting a plurality N of imager devices, where N
3 represents a predetermined number of imager devices;
4 (ii) exposing the first (N=1) imager device to a target to
5 produce a first set of target results;
6 (iii) calculating a first set of calibrating coefficients
7 from the first set of target results;
8 (iv) exposing the first imager device to a plurality of light
9 radiation sources to produce a first set of source results,
10 wherein the first set of calibrating coefficients and the first
11 set of source results form a pair of results;
12 (v) repeating steps (ii) through (iv) N-1 times by employing
13 a different imager device during each repeat of steps (ii) through
14 (iv); and
15 (vi) determining the correlation between the plurality N of
16 imager devices by using each pair results.

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1 56. (New) The method of claim 55 wherein exposing the first
2 (N=1) imager device to a target includes presenting a target that
3 represents the spectral sensitivity of the human visual system.

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1 57. (New) The method of claim 56 wherein presenting a target
2 that represents the spectral sensitivity of the human visual
3 system includes presenting a Macbeth Colorchecker® color rendition
4 chart.

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1 58. (New) The method of claim 55, each light radiation source
2 having a different spectral radiation characteristics, wherein
3 exposing the first imager device to a plurality of light radiation
4 sources includes radiating a series of lights from the plurality
5 of light radiation sources.

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1 59. (New) The method of claim 55, wherein exposing the first
2 imager device to a plurality of light radiation sources includes
3 presenting five light emitting diodes having the peak wavelengths
4 of 430nm, 470nm, 545nm, 590nm, and 660nm, respectively.

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1 60. (New) The method of claim 55, wherein determining the
2 correlation between the plurality N of imager devices by using
3 each pair results includes employing polynomial regression.

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1 61. (New) The method of claim 55, wherein determining the
2 correlation between the plurality N of imager devices by using
3 each pair results includes deriving a unique set of correlation
4 coefficients for each set of calibrating coefficients.

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1 62. (New) The method of claim 61, wherein deriving a unique
2 set of correlation coefficients for each set of calibrating
3 coefficients includes employing a statistics analysis program.

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1 63. (New) An image product produced by the process of claim
2 39, the process further comprising:
3 exposing an imager device to light reflecting off of an
4 object to produce a set of object responses; and
5 applying the correlation coefficients to the set of object
6 responses to produce the image product.

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1 64. (New) A method to simulate at least one target color,
2 comprising:
3 presenting means for radiating light;
4 producing a set of responses by exposing one of an imager
5 device and a spectrophotometer to the means for radiating light;
6 presenting a target having at least one target color, the at
7 least one target color having a reflection wavelength;
8 representing the reflection wavelength as a value; and
9 determining at least one weighing factor from the set of
10 responses and the value of the at least one target color.

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1 65. (New) The method of claim 64, wherein presenting means
2 for radiating light includes presenting a plurality of light
3 radiating sources.

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1 ~~66~~. (New) The method of claim 65, wherein presenting a
2 plurality of light radiating sources includes presenting three to
3 more than five light emitting diodes, wherein each light emitting
4 diode includes a different spectral radiation characteristic.

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1 ~~67~~. (New) The method of claim 66, wherein presenting three to
2 more than five light emitting diodes includes presenting five
3 light emitting diodes having the peak wavelengths of 430nm, 470nm,
4 545nm, 590nm, and 660nm, respectively.

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1 ~~68~~. (New) The method of claim 64 wherein presenting a target
2 includes presenting a target that represents the spectral
3 sensitivity of the human visual system.

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1 ~~69~~. (New) The method of claim 68 wherein presenting a target
2 that represents the spectral sensitivity of the human visual
3 system includes presenting a Macbeth Colorchecker® color rendition
4 chart.

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1 ~~70~~. (New) The method of claim 64 wherein producing a set of
2 responses includes determining a radiating set of XYZ tristimulus
3 values for the means for radiating light, wherein presenting a
4 target having at least one target color includes presenting a
5 target having twenty four colors, each color of the target having
6 a reflection wavelength, wherein representing the reflection
7 wavelength as a value includes determining a reflecting set of XYZ
8 tristimulus values for the twenty four colors.